

General Health of Iranian Registered Nurses: A Cross Sectional Study

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Abstract: Background & Aim: Nurses' health status can directly impact the performance of health system at different level. The aim of this study was to examine Iranian registered nurses' level of general health.

Material and methods: This cross sectional study conducted from March to June 2015 in in five hospitals. With using stratified sampling method, 123 nurses from educational hospitals of Qazvin in North of Iran were recruited as the subjects for this study. Data were collected with using demographics questionnaire, and the General Health Questionnaire-28 (GHQ-28). All statistical analyses were performed using SPSS software (v17.0; PASW Statistics) and a variable was considered to be statistically significant if $P < 0.05$.

Results: Of the 123 nurses, who participate in present study, 88.6% were female and the rest were male. The mean score of general health were 24.3 ± 11.1 . Among four scales of GHQ-28, higher and lower score were related to social dysfunction and depressive symptoms respectively. Among demographics characteristic's, only nurses sex were related to their general health (mean score of women nurses were higher in compared to men nurses).

Conclusion: Results of present study revealed that Iranian nurses general health is not in good level. Appropriate strategy in health care organization to investigate nurses' health level is recommended. Moreover, interventional programs to identify, and relieve factors that affect nurses general health should be developed.

Keywords: Nurses, general health, GHQ-28, risk factors.

1. INTRODUCTION

According to American Nurses Association "Nursing is the protection, promotion, and optimization of health and abilities, prevention of illness and injury, facilitation of healing, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, groups, communities, and populations" [1]. Nursing has altered considerably since Florence Nightingale defined it as 'a foot-soldier on the frontline in the battle against disease' [2]. Today, nurses comprise a majority of healthcare professionals that have a vital role for the health of the population globally [3, 4]. In our country Iran, about 80% of practitioners in the health care system are nurses, who are in the first line to provide health services [4]. Nursing is an extremely stressful profession [5, 6, 7, 8]. Results of one study in this regards showed that more than 90 of nurses experienced occupational stress and 66% of them experienced very high level of stress [9]. Results of other study in this regards showed that more than 87% of nurses are at risk of occupational stress [10]. Nurses usually are confronted with a variety of stresses in their work environment such as personal, communicational and organizational stress, which affect their health status negatively [5, 6, 11]. In addition, the

nurses often have to witness many tragic events of life: disease, trauma or even death which can be physically demanding and psychologically stressful [5]. Nurses' health status can directly impact the performance of health system at different level. The aim of this study was to examine Iranian nurses' level of general health.

2. METHODS

This study employed a descriptive design and was conducted in five hospitals in North of Iran. With using stratified sampling method, 123 nurses from educational hospitals of Qazvin in North of Iran were recruited as the subjects for this study. Consent was implicit by respondent's decision to return the completed questionnaire. Participants were assured that all data would remain anonymous, kept confidential and be stored safely. Ethical approval was obtained from heads of the hospitals prior to the collection of any data.

The first part included the participants' demographic information, including age, sex, level of education, working experience, working hours in a week and economic status. In the second part, General Health Questionnaire-28 (GHQ-28) was used. The GHQ-28 has 28 questions with multiple choice answers. GHQ-28 is composed of four scales including somatic symptoms (questions 1 to 7), anxiety and insomnia (questions 8 to 14), social dysfunction (questions 15 to 21) and depressive symptoms (questions 22 to 28). Likert scoring system used in this questionnaire and scores range varies from 0 to 84 for each person. Higher score on this test indicates the presence of more severe general health problem. In a study on the validity of the GHQ-28 that has been done in Iran, the cut-off point, ≤ 23 have acquired, so that people who have acquired a score equal or less than 23 can be considered as healthy subjects. The previous study in Iran which used GHQ-28 has reported the good reliability and validity for the questionnaire [12]. Questionnaires were delivered to the subjects and the explanations were provided and then were collected by first researcher. Descriptive statistics (mean and standard deviation), Chi square, Pearson correlation coefficient, independent sample T-test, one way ANOVA and logistic regression were used for data analysis. All statistical analyses were performed using SPSS software (v17.0; PASW Statistics) and a variable was considered to be statistically significant if $P < 0.05$.

3. RESULTS

Of the 123 nurses who participate in present study, 88.6% were female and the rest were male. The mean age of nurses was 32.3 ± 5.8 years and mean years of experience was 5.4 ± 3.7 years.

The mean score of general health were 24.3 ± 11.1 . Among four scales of GHQ-28, higher and lower score were related to social dysfunction and depressive symptoms respectively (table 1). Results of present study also showed that in total, 54.4% of nurses were healthy (table 2).

Table 1: Mean and standard deviation of nurse's general health score

| General health sub scale | Mean | Standard deviation |
|--------------------------|-------|--------------------|
| somatic symptoms | 6.40 | 3.62 |
| anxiety and insomnia | 6.62 | 4.34 |
| social dysfunction | 8.71 | 3.16 |
| depressive symptoms | 2.64 | 1.98 |
| Total score | 24.37 | 11.12 |

Table 2: frequency of nurse's response in each domains of GHQ 28

| General health sub scale | Healthy | Non healthy |
|--------------------------|------------|-------------|
| somatic symptoms | 121(98.4%) | 2 (1.6%) |
| anxiety and insomnia | 118(95.9) | 5 (4.1%) |
| social dysfunction | 118(95.9) | 5 (4.1%) |
| depressive symptoms | 121(98.4%) | 2 (1.6%) |
| Total score | 67 (54.5%) | 56 (45.5%) |

Among demographics characteristic's, only nurses sex were related to their general health. According to results of independent t test, the mean score of general health score were higher in women nurses in compared to men nurses (table 3).

Table 3: men and women nurse's general health mean score

| General health sub scale | Men | Women |
|--------------------------|------------|-------------|
| somatic symptoms | 4.93±2.78 | 6.59±3.69 |
| anxiety and insomnia | 5.36±3.24 | 6.78±4.45 |
| social dysfunction | 8.14±3.46 | 8.78±3.13 |
| depressive symptoms | 1.21±2.66 | 2.83±4.09 |
| Total score | 19.64±8.04 | 24.97±11.34 |

4. DISCUSSION

World Health Organization (W.H.O.) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, and emphasizes that none of these dimensions has priority over the other [13]. The right to health is a fundamental part of our human rights [13]. Nurses are exposed to different stressors in their work environment that affect their health status and quality of life negatively. With regards to this, present study conducted to examine Iranian registered nurses general health status. According to finding of present study, the mean score of general health were 24.3 ± 11.1 that indicate relatively poor general health.

Literature review showed few studies that surveyed level of nurses' general health. In one study in 2008, Sveinsdóttir & Gunnarsdóttir examined predictors of self-assessed physical and mental health of 394 Icelandic nurses. About 22% of nurses in Sveinsdóttir & Gunnarsdóttir study assessed their physical health as poor or very poor and 14.3% assessed their mental health as such. When Sveinsdóttir & Gunnarsdóttir compared nurses who assess their physical or mental health poor/very poor with other nurses, reported that nurses who assess their physical or mental health poor/very poor have more symptoms in general, less regular exercise, as well as more use of medication, more visits to physicians, trouble with sleeping, conflicts between work and family life, work absence, and they experience their work as more strenuous [15]. Finding of few studies in our country also showed similar finding with finding of present study. In one study in this regards, Haseli et al., examined Iranian nurses' general health level. They surveyed general health of 126 nurses with using GHQ-28. The nurses' general health mean score was 28.4 in Haseli et al., study Of 126 urses who participate in Haseli et al., study 75 (59.5%) cases were suspects of mental disorders. Also 12.7%, 15.9%, 8.7% and 6.3% of nurses in Haseli et al., study reported some level of physical disorders, anxiety and sleep disorders, social dysfunction and had depression respectively [5]. In another study in in 2015, Maghsoodi et al., examined health status of 374 nurses in 8 Medical- Educational Centers affiliated to Guilan University of Medical Sciences with using similar questionnaire. Results of Maghsoodi et al., study revealed that 111 (29.7%) nurses were healthy and 263 of them (70.3%) were unhealthy. Similar to finding of present study, the higher and lower mean score were related to social performance domain and depression area in Maghsoodi et al., study. The mean score of social performance domain and depression symptoms in Maghsoodi et al., study were 11.35 ± 3.13 and 2.18 ± 2.86 respectively. Results of Maghsoodi et al., study also showed that factors such as marital status, care of elderly and handicapped child, partnership, job status, organizational post, second job, and job interests affect nurses' health status [16]. In other study in our country, Iran, Darvishpur et al., examined health status of nurses who work in hospitals affiliated to Shahroud medical university with using different questionnaire. For examining nurses health status, Darvishpur et al., used short form health survey (SF-36). With regards to SF-36 subscale, lower and higher mean score were related to bodily pain and physical functioning with 38.20 ± 25.26 and 71.94 ± 24.38 respectively. Darvishpur et al., also reported that factors such as age, recruitment status, work shift, clinical ward and years of nursing experience affect nurses health status significantly [6]. In other study in this regards, Rahimpour et al., examined general health of 240 nurses in 2012. They reported that 36.7%, 58.1% and 5.2% of nurses have good, some good and poor level of health respectively [17].

5. CONCLUSION

Decline in the nurse's general health not only causes problems for nurses, but also by affecting the provided services by them, will impact the health of society. Results of present study revealed that Iranian nurses general health is not in good level. Nursing managers should take more attention in order to improve the working environment conditions and train the

nurses regarding the coping methods. Further study in this regards is recommended. Also interventional study recommended for examining effect of different interventional methods for improving nurse's general health.

Limitation

One of the limitations of this study is that data collection was based on self-reported questionnaires which are prone to recall bias.

REFERENCES

- [1] American Nurses Association. Available at: www.nursingworld.org. 2016.
- [2] Nolan P, Smojkis M. The mental health of nurses in the UK. *Advances in Psychiatric Treatment*. 2003, 9 (5):374-379.
- [3] Perry L, Lamont S, Brunero S, Gallagher R, Duffield C. The mental health of nurses in acute teaching hospital settings: a cross-sectional survey. *BMC Nurs*. 2015, 27;14:15.
- [4] Majidi SA, Masoudi I, Moghadamnia MT, Sharifi M, Barzegar M. The relationship between work shifts and nurses physical, psychological and social health indicators. *International Journal of Hospital Research* 2014, 3(4):193-198.
- [5] Haseli N, Ghahramani L, Nazari M. General Health Status and Its Related Factors in the Nurses Working in the Educational Hospitals of Shiraz University of Medical Sciences, Shiraz, Iran, 2011. *Nurs Midwifery Stud*. 2013;1(3):146-51.
- [6] Darvishpur kakhki A, Ebrahimi H, Alavi majd H. Health status of nurses of Hospitals Dependent to Shahroud Medical university. *IJN*. 2009;22(60): 19-27.
- [7] Al-Makhaita HM, Sabra AA, Hafez AS. Predictors of work-related stress among nurses working in primary and secondary health care levels in Dammam, Eastern Saudi Arabia. *J Family Community Med*. 2014;21(2):79-84.
- [8] Dagget T, Molla A, Belachew T. Job related stress among nurses working in Jimma Zone public hospitals, South West Ethiopia: a cross sectional study. *BMC Nurs*. 2016, 16; 15:39.
- [9] Mwinga C, Mugala D. Prevalence and causes of stress among nurses at Ndola central hospital – A nurses' perspective. *International Journal of Novel Research in Healthcare and Nursing*. 2015, 2(3): 158-165.
- [10] Bhatia N, Kishore J, Anand T, Chander Jiloha R. Occupational stress amongst nurses from two tertiary care hospitals in Delhi. *Australasian Medical Journal*. 2010, 3(11):731-738.
- [11] Ioannou P, Katsikavali V, Galanis P, Velonakis E, Papadatou D, Sourtzi P. Impact of Job Satisfaction on Greek Nurses' Health-Related Quality of Life. *Saf Health Work*. 2015; 6(4):324-8.
- [12] Khanizadeh M, Sirati NIRM, Abdi F. Assessing of mental health level of employed nurses in educational hospitals affiliated to Tehran medical sciences university. *Quart J Fundam Ment Health*. 2006; 8(31-32):141-8.
- [13] <http://www.who.int/about/definition/en/print.html>.
- [14] Sveinsdóttir H, Gunnarsdóttir HK. Predictors of self-assessed physical and mental health of Icelandic nurses: results from a national survey. *Int J Nurs Stud*. 2008; 45(10):1479-89.
- [15] Maghsoodi S, Hesabi M, Emami sigaroudi A, Kazemnejad leili E, Monfared A. General health and related factors in employed nurses in Medical-Educational Centers in Rasht. *Holist Nurs Midwifery*. 2015; 25 (1):63-72.
- [16] Rahimpour F, Saeedi F, Fazli A, Mohammadi S. The relationship of sleep quality and general health in shift working nurses. *tkj*. 2013; 4 (4) :8-13.